

REMARKS

Applicant, by the amendments presented above, has made a concerted effort to present claims which clearly define over the prior art of record, and thus to place this case in condition for allowance.

In the Office Action, the Examiner rejected the claims under Section 103, citing United States Patent No. 5,424,104 (Amimoto) and Japanese Patent Nos. 11-106570 (Yamamoto) and 09-059431 (Yamamoto et al.). Applicant respectfully requests reconsideration of the rejections.

As noted by the Examiner, Amimoto describes the use of multiple antioxidants. All Amimoto teaches, however, is that the antioxidants "can be used singly or in combination" (column 12, lines 22-23, in connection with phosphorus antioxidants)(column 13, lines 11-12, in connection with other antioxidants). Amimoto lists a great number of antioxidants (for example, column 11, line 59 to column 13, line 10). Applicant acknowledges that some of these antioxidants may have melting points within the range of 70 to 170 °C and others may have melting points within the range of 180 to 300 °C.

Amimoto, however, at best teaches a person of skill in the art that "you can use two or more antioxidants". Amimoto does not teach using two antioxidants with specific melting point ranges. It would not be at all obvious to pick one of Amimoto's specified antioxidants, having a melting point of 70 to 170 °C and a second one of Amimoto's specified antioxidants having a melting point of 180 to 300 °C. In fact, Amimoto, by recommending the use of antioxidants in combination but specifying no particular conditions for the combination, teaches away from Applicant's recited claims.

Amimoto specifies approximately 74 antioxidants. It would take an undue amount of experimentation for a person of skill in the art to compare all possible combinations of two or more of those specified examples, to determine which combination or combinations achieve the surprising result of Applicant's invention. Please note that there are 2,701 possible combinations of two of Amimoto's antioxidants $[(n^2-n)/2]$.

The Examiner's conclusion, then, is contrary to the Federal Circuit's opinion in *Eli Lilly & Co. v. Zenith Goldline Pharmaceuticals, Inc.*, 471 F.3d 1369 (Fed. Cir. 2006). In that case, the cited prior-art reference made a broad generic disclosure and the number of compounds disclosed, including all alternative substituents, numbered in the millions. The Court concluded, therefore, that there was no anticipation.

Similarly, in the present case, there are 2,701 combinations of two antioxidants. But since Amimoto does not teach the use of two, but rather teaches the use of multiple combinations, a person of skill in the art would have to try combinations of three, combinations of four, etc., which would add up rapidly to an impossible amount. Amimoto, then, under the rule of the *Eli Lilly* case, does not teach Applicant's claim to the use of two antioxidants in different, specific melting point ranges.

Applicant noted in the last Response that the use of the claimed combination resulted in excellent productivity and longer operating time for the equipment using the claimed method. The Examiner notes that these results were not recited in the claims. Applicant is not, however, required to recite the improved results achieved by a claimed method. Applicant's recited steps are novel and non-obvious over the cited prior art. Applicant's promulgation of the improved

results show that the invention is useful.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of the pending claims.

Additionally, Applicant requests reconsideration of the Examiner's conclusion that Applicant's claimed melting point range for the polyamide is obvious over JP 09-059431 to Yamamoto. Applicant recites that the melting point of its polyamide is within 160 to 265 °C. Yamamoto '431 describes a melting point of 135 to 350 °C.

Yamamoto '431 disclosed range is so broad as to encompass a very large number of possible distinct compositions. *See* MANUAL OF PATENT EXAMINING PROCEDURE § 2144.05(I). Accordingly, as noted in the MPEP, the prior art may disclose a genus, but Applicant is entitled to claims reciting a species. Therefore, Applicant requests that the Examiner withdraw the conclusion with regard to Yamamoto '431.

The Examiner noted that Applicant's arguments regarding the advantage of its invention, being a reduction in the possibility of scorching, was not recited in the claims. Applicant recites the following limitations:

- a first antioxidant with a melting point of 10-170 °C;
- a second antioxidant with a melting point of 180-300 °C;
- a polyamide with a melting point within 160-265 °C.

As a result of these limitations, Applicant's method can operate at a temperature below and up to 300 °C. Amimoto describes a process having a higher operating temperature and Yamamoto '431's range goes above Applicant's operating temperature.

As a result of Applicant's lower operating temperature, there is an improvement in the

manufacturing process, as the possibility of scorching in the extruder is reduced. The Examiner asserts that a reduction in scorching is not recited in the claims and that limitations are not imported into the claims. Applicant agrees that limitations are not imported into the claims. In this case, however, the limitations are the use of a materials having certain, low melting points. The reduction in scorching is an advantageous result of operating at Applicant's lower operating temperature. Applicant is not required to recite the advantages of its invention, just the steps of the method of the invention.

Please note that Applicant amends claim 3 solely to correct a typographical error. No change in the scope of the claim is made.

Applicant also adds a new claim 4.

In view of the above amendments and remarks, Applicant respectfully submits that the claims of the application are allowable over the rejections of the Examiner. Should the present claims not be deemed adequate to effectively define the patentable subject matter, the Examiner is respectfully urged to call the undersigned attorney of record to discuss the claims in an effort to reach an agreement toward allowance of the present application.

Respectfully submitted,

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